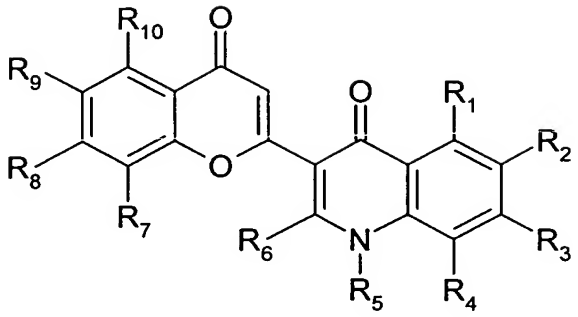
CLAIMS

1. Compound of formula (I) :



(I),

wherein :

- R_1, R_2, R_3, R_4, R_6, R_8, R_9 and R_{10}, which may be the same or different, each represent a group selected from hydrogen, hydroxy, linear or branched (C_1-C_6)alkoxy, linear or branched (C_1-C_6)alkyl, arylalkoxy in which the alkoxy group is linear or branched (C_1-C_6), alkoxycarbonylalkoxy in which each of the alkoxy groups is linear or branched (C_1-C_6), and OR' wherein R' represents an ionised or ionisable group,
- R_5 represents a group selected from linear or branched (C_1-C_6)alkyl, aryl and heteroaryl,
- R_7 represents a group selected from hydrogen, hydroxy, linear or branched (C_1-C_6)alkoxy, linear or branched (C_1-C_6)alkyl and (C_3-C_7)cycloalkyl, or R_7 represents a nitrogen-containing or oxygen-containing heterocycle,

optical isomers thereof when they exist, addition salts thereof with a pharmaceutically acceptable acid and hydrates and solvates thereof,

an aryl group being understood to be phenyl, biphenylyl, naphthyl or tetrahydronaphthyl, each of those groups being optionally substituted by one or more identical or different

atoms or groups selected from halogen atoms and linear or branched (C_1-C_6)alkyl groups, hydroxy groups, linear or branched (C_1-C_6)alkoxy groups, linear or branched (C_1-C_6)polyhaloalkyl groups, amino groups (optionally substituted by one or two linear or branched (C_1-C_6)alkyl groups), nitro groups and (C_1-C_2)alkylenedioxy groups,

a heteroaryl group being understood to be a 5- to 12-membered group which either is monocyclic and aromatic or is bicyclic with at least one of the rings being of aromatic character and which contains one, two or three hetero atoms selected from oxygen, nitrogen and sulphur, it being understood that the heteroaryl group may be optionally substituted by one or more identical or different atoms or groups selected from halogen atoms and linear or branched (C_1-C_6)alkyl groups, hydroxy groups, linear or branched (C_1-C_6)alkoxy groups, linear or branched (C_1-C_6)polyhaloalkyl groups and amino groups (optionally substituted by one or two linear or branched (C_1-C_6)alkyl groups),

a nitrogen-containing heterocycle being understood to mean a saturated or unsaturated, 5- to 7-membered monocyclic group containing a nitrogen atom and optionally substituted by one or more groups selected from hydroxy, linear or branched (C_1-C_6)alkoxy, linear or branched (C_1-C_6)alkyl, aryl-(C_1-C_6)alkyl in which the alkyl moiety is linear or branched and amino-(C_1-C_6)alkyl in which the alkyl moiety is linear or branched and in which the amino group is optionally substituted by one or two linear or branched (C_1-C_6)alkyl groups,

an oxygen-containing heterocycle being understood to mean a saturated or unsaturated, 5- to 7-membered monocyclic group containing an oxygen atom and optionally substituted by one or more groups selected from hydroxy, linear or branched (C_1-C_6)alkoxy, linear or branched (C_1-C_6)alkyl, aryl-(C_1-C_6)alkyl in which the alkyl moiety is linear or branched and amino-(C_1-C_6)alkyl in which the alkyl moiety is linear or branched and in which the amino group is optionally substituted by one or two linear or branched (C_1-C_6)alkyl groups.

2. Compound of formula (I) according to claim 1, wherein R_1, R_2, R_3, R_4, R_6, R_8, R_9 and R_{10}, which may be the same or different, each represent a group selected from

hydrogen, hydroxy, linear or branched (C_1-C_6)alkoxy, linear or branched (C_1-C_6)alkyl, arylalkoxy in which the alkoxy group is linear or branched (C_1-C_6) and alkoxycarbonylalkoxy in which each of the alkoxy groups is linear or branched (C_1-C_6).

3. Compound of formula (I) according to claim 1, wherein R_1, R_2, R_3, R_4, R_6, R_8, R_9 and R_{10}, which may be the same or different, each represent a group selected from hydrogen, hydroxy, linear or branched (C_1-C_6)alkoxy, linear or branched (C_1-C_6)alkyl, arylalkoxy in which the alkoxy group is linear or branched (C_1-C_6), alkoxycarbonylalkoxy in which each of the alkoxy groups is linear or branched (C_1-C_6), and OR' in which R' represents a group selected from phosphate $-PO(OH)_2$, sulfate $-SO_3H$, carboxyalkylcarbonyl in which the alkyl group is linear or branched (C_1-C_6), dialkylaminoalkylcarbonyl in which each of the alkyl groups is linear or branched (C_1-C_6), and carboxyalkylaminocarbonyl in which the alkyl group is linear or branched (C_1-C_6).

4. Compound of formula (I) according to any one of claims 1 to 3, wherein R_5 represents an aryl group.

5. Compound of formula (I) according to any one of claims 1 to 4, wherein R_7 represents a hydrogen atom.

6. Compound of formula (I) according to any one of claims 1 to 4, wherein R_7 represents an optionally substituted nitrogen-containing heterocycle.

7. Compound of formula (I) according to any one of claims 1 to 6, wherein R_5 represents a phenyl group and R_7 represents a hydrogen atom or a substituted 1,2,3,6-tetrahydro-4-pyridyl group.

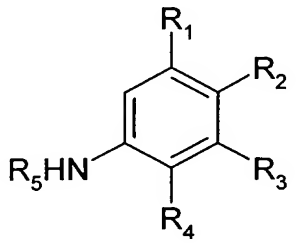
8. Compound of formula (I) according to claim 1, which is 3-(5-hydroxy-4-oxo-4*H*-1-benzopyran-2-yl)-1-phenyl-1*H*-quinolin-4-one.

9. Compound of formula (I) according to claim 1, which is 3-[5,7-dimethoxy-8-(1-methyl-1,2,5,6-tetrahydropyridin-4-yl)-4-oxo-4*H*-1-benzopyran-2-yl]-1-phenyl-1*H*-1,4-dihydroquinolin-4-one.

10. Compound of formula (I) according to claim 1, which is 3-(5,7-dihydroxy-4-oxo-4*H*-1-benzopyran-2-yl)-1-phenyl-1*H*-1,4-dihydroquinolin-4-one.

11. Compound of formula (I) according to claim 1, which is 3-[5,7-dihydroxy-8-(1-methyl-1,2,5,6-tetrahydropyridin-4-yl)-4-oxo-4*H*-1-benzopyran-2-yl]-1-phenyl-1*H*-1,4-dihydroquinolin-4-one.

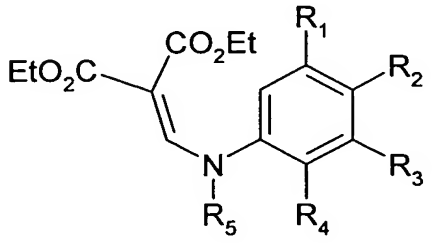
12. Process for the preparation of compounds of formula (I) according to claim 1, characterised in that a compound of formula (II) :



(II),

wherein R_1, R_2, R_3, R_4 and R_5 are as defined for formula (I),

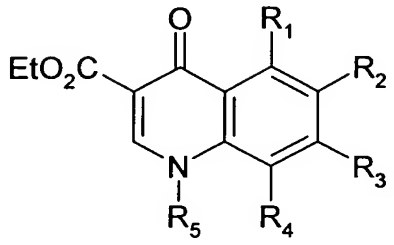
is reacted with diethyl ethoxymethylenemalonate to yield the compound of formula (III) :



(III),

wherein R_1, R_2, R_3, R_4 and R_5 are as defined hereinbefore and Et represents an ethyl group,

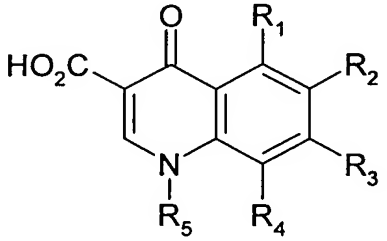
which is cyclised under acid conditions to yield the compound of formula (IV) :



(IV),

wherein R_1, R_2, R_3, R_4 and R_5 and Et are as defined hereinbefore,

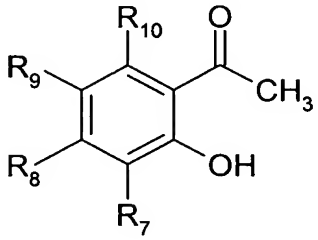
which is hydrolysed to yield the compound of formula (V) :



(V),

wherein R_1, R_2, R_3, R_4 and R_5 are as defined hereinbefore,

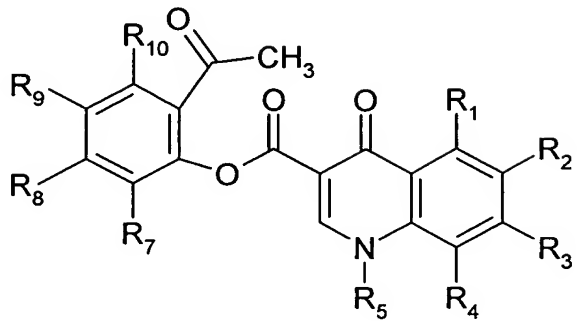
which is converted by the action of thionyl chloride into an acid chloride, which is then reacted with the compound of formula (VI) :



(VI),

wherein R_7, R_8, R_9 and R_{10} are as defined for formula (I),

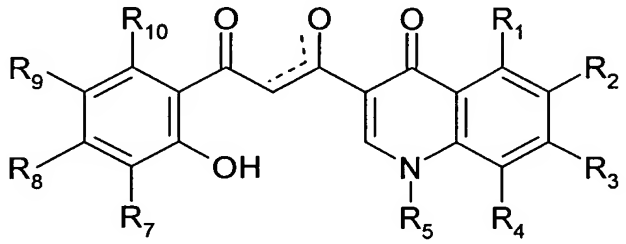
to yield the compound of formula (VII) :



(VII),

wherein R_1, R_2, R_3, R_4, R_5, R_6, R_7, R_8, R_9 and R_{10} are as defined hereinbefore,

which is subjected to the action of a base to yield the compound of formula (VIII) :



(VIII),

wherein R_1, R_2, R_3, R_4, R_5, R_6, R_7, R_8, R_9 and R_{10} are as defined hereinbefore,

and  indicates that the compound is obtained, depending on the molecules involved, in the form of a keto-enol mixture,

which is then subjected to acid conditions to yield the compound of formula (I), which is purified, if necessary, according to a conventional purification technique, which is separated, if necessary, into its optical isomers according to a conventional separation technique and which is converted, if desired, into their addition salts with a pharmaceutically acceptable acid.

13. Pharmaceutical composition comprising as active ingredient a compound according to any one of claims 1 to 11, in combination with one or more inert, non-toxic, pharmaceutically acceptable carriers.

14. Pharmaceutical composition according to claim 13, for use as an anti-cancer medicament.